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10/719,631	11/21/2003	Arnis E. Peters	01-1668-E	3462
20306 7590 03/17/2008 MCDONNELL BOEHNEN HULBERT & BERGHOFF LLP 300 S. WACKER DRIVE 32ND FLOOR CHICAGO, IL 60606				
EXAMINER				
AUSTIN, AARON				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/719,631

Applicant(s)

PETERS ET AL.

Examiner

AARON S. AUSTIN

Art Unit

1794

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-14, 17 and 20-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-14, 17 and 20-23 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/22/2008 has been entered.

Claim Objections

Claim 14 is objected to because of the following informalities: the subject matter of the claim appears to be redundant in light of the present amendment. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since

the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claim 14 recites the broad recitation of a glass filled resin in line 2, and the claim also recites a glass filled nylon resin through claim 12, line 7 which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 20-21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Davidson et al. (US 6,321,441).

Davidson et al. teach a trim level piece comprising an insert 4 having at least one hole and at least one feature formed in the insert and a backing. A resin backing 100 associated with the insert backing includes a portion that protrudes through the hole to form at least one resin feature located on the insert predecorated surface. See Fig. 1.

Regarding claim 21, the insert 4 is a preformed skin.

Regarding claim 23, the resin backing 100 is flexible rubber that is either transparent or opaque (column 2, line 22).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Marton et al. (U.S. Patent No. 4,241,129), and further in view of Luch (U.S. Patent No. 4,429,020), Tanikita et al. (U.S. Patent No. 5,833,889), and Grefenstein et al. (International Application No. PCT/EP00/05755, U.S. equivalent: Patent Application Publication No. 2006/0029809).

Sweeny teaches an automotive quality, laminate article and method of production thereof (abstract). The article comprises pre-shaped metal veneers and inner

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substrates formed in situ and bonded to the inner surface of the veneers (column 3, lines 1-16). The metal may be aluminum (column 4, line 1) and may have an exemplary thickness of 0.025 inches or .015 inches (Examples 1 and 2). The substrate is formed of resins such as polyester, epoxy, phenolic, and the like and may include impregnated fiber materials (column 4, lines 1-27), such as glass filled fiber materials (column 9, line 12). Adhesion of the metal to the substrate may be improved through use of metal pretreatments or promoters (columns 4 lines 35-53).

Sweeny does not specifically teach the resin layer as having a thickness of no greater than 2.5 mm.

Marton et al. teach a decorative automobile trim piece (column 10, line 66) comprising a metal sheet 7 having a reflective and/or decorative surface (abstract). The metal sheet 7 is less than 1 micrometer in thickness (column 7, line 16). Intimately bonded to the metal sheet 7 is a thermoplastic polymer resin layer 3 (column 2, line 66 to column 3, line 3). The thickness of the thermoplastic polymer is in the range of 2 to about 10,000 micrometers (column 4, line 18). Therefore, as Marton et al. clearly teach the thickness in the range of 2 to about 10,000 micrometers for a polymer resin member of a metal/resin composite provides the advantage of use as automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the automobile trim of Sweeny with the thickness of the resin layer of the composite in the range of 2 to 10,000 micrometers.

Further, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness and glass fiber content for the intended

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application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Sweeny does not teach the glass filled resin as being a nylon resin.

Sweeny et al. teach the resin may be glass filled and may be selected from polyester, epoxy, phenolic, and the like, as noted above (column 4, line 23). Polyamides are included as like polymers to polyesters, etc. as used in metal polymer composites for use as automobile trimmings (see the abstract of U.S. Patent No. 4,429,020 to Luch). Therefore it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the resin layer taught by Sweeny et al. of a glass filled nylon resin.

Sweeny does not teach the amount of glass fibers by weight used as the reinforcement fibers of the thermoplastic polymer.

Tanikita et al. teach a lamp reflector for automobiles (column 5, lines 24-25) including a base resin to which aluminum is applied containing 30 wt% of glass fibers (column 4, lines 49-50). The resin may be a polyamide (of which nylon is an example) (column 3, line 24). Therefore, as Tanikita et al. clearly teach a resin containing 30% by weight of glass fibers provides the advantage of structural reinforcement suitable for automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Sweeny in an amount of 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Likewise, Grefenstein et al. teach a backmolded polymer molding for use in the automotive sector, such as for trim (paragraphs [0017] and [0108] of U.S. equivalent) comprising a backmolded fiber reinforced thermoplastic having a fiber content of from 5 to 30 wt%, such as glass fiber (paragraphs [0014], [0016] and [105] of U.S. equivalent). Thermoplastic polymers include polyamides of which nylon is an example. Therefore, as Grefenstein et al. clearly teach a thermoplastic resin containing 5 to 30 wt% of glass fibers provides the advantage of structural reinforcement suitable for automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include the glass fiber filler of Sweeny in an amount of 5 to 30 wt%. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Regarding claim 13, a pre-shaped aluminum sheet is taught (Example 1).

Regarding claim 14, the resin layer may include impregnated fiber materials (column 4, lines 1-27), such as glass filled fiber materials (column 9, line 12).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sweeny (EP 0376010 A2) in view of Marton et al. (U.S. Patent No. 4,241,129).

Sweeny teaches an automotive quality, laminate article and method of production thereof (abstract). The article comprises pre-shaped metal veneers and inner substrates formed in situ and bonded to the inner surface of the veneers (column 3, lines 1-16). The metal may be aluminum (column 4, line 1) and may have an exemplary thickness of 0.025 inches or .015 inches (Examples 1 and 2). The substrate is formed

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of resins such as polyester, epoxy, phenolic, and the like and may include impregnated fiber materials (column 4, lines 1-27), such as glass filled fiber materials (column 9, line 12). Adhesion of the metal to the substrate may be improved through use of metal pretreatments or promoters (columns 4 lines 35-53). Sweeny teaches a hot melt process (column 10, lines 29-37) implementing an adhesive in the form of an adhesion promoter (column 9, line 43).

Sweeny does not specifically teach the thickness of the trim piece as ranging from 0.04 to 0.156 inches.

It would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Further, Marton et al. teach a decorative automobile trim piece (column 10, line 66) comprising a metal sheet 7 having a reflective and/or decorative surface (abstract). The metal sheet 7 is less than 1 micrometer in thickness (column 7, line 16). Intimately bonded to the metal sheet 7 is a thermoplastic polymer resin layer 3 (column 2, line 66 to column 3, line 3). The thickness of the thermoplastic polymer is in the range of 2 to about 10,000 micrometers (column 4, line 18). Therefore, as Marton et al. clearly teach the thickness in the range of 2 to about 10,000 micrometers for a polymer resin member of a metal/resin composite provides the advantage of use as automobile trim, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to form the automobile trim of Sweeny with the thickness of the resin layer of the

composite in the range of 2 to 10,000 micrometers thus including a total thickness overlapping the claimed range. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bosse et al. (EP 0936044 A1).

Bosse et al. teach a preshaped formed metal sheet insert having a first and second surface (paragraph [0036]). The metal sheet may be aluminum or an alloy thereof and has a thickness preferably between 0.2 and 1.5 mm, namely 0.00787 to 0.059 inches (paragraph [0036]). A resin layer is applied to the metal sheet wherein the resin may be a polyamide, of which nylon is an example, with 30% glass fibers (paragraph [0031]). Recitation of a "decorative automobile trim piece" is considered intended use.

Bosse et al. do not specifically teach the resin layer as having a thickness of no greater than 2.5 mm. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness of the resin layer for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Bosse et al. teach aesthetic properties (paragraph [0020]) do not appear to specifically teach a decorated first surface of the metal sheet insert. However, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to include a decorated first surface on the metal sheet insert, since it has been held that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art. *In re Seid*, 161 F.2d 229, 73 USPQ 431.

Regarding claim 13, a pre-shaped aluminum sheet is taught (paragraph [0036]).

Regarding claim 14, the resin layer may include glass filled fiber materials (paragraph [0031]).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosse et al. (EP 0936044 A1) in view of Tanikita et al. (U.S. Patent No. 5,833,889) and Hashimoto (JP01-114407).

Bosse et al. teach a molded composite as described above.

Bosse et al. do not specifically teach the resin layer as having a total thickness in a range of 0.040 to about 0.156 inches. However, it would have been obvious to one having ordinary skill in the art at the time of the invention to adjust the thickness for the intended application, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

Bosse et al. do not teach use of an adhesive.

Tanikita et al. teach a molded composite having a metal layer and applied resin layer. An adhesive primer may be used to enhance the adhesive properties of the metal coating with the resin (column 2, lines 61-64).

Likewise, Hashimoto teaches preparation of a composite for decorating an automobile body wherein a resin and a metal foil are firmly integrated through implementation of a hot-melt adhesive therebetween (abstract and accompanying figure).

Therefore, as it is clearly taught by Tanikita et al. and Hashimoto that using an adhesive to join a molded metal and a resin provides the advantage of firm adhesion, it would have been obvious to one of ordinary skill in the art at the time the claimed invention was made to locate an adhesive between the metal sheet insert and the resin layer of composite taught by Bosse et al. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bowen (GB 2027636A) in view of Vuilleumier (US 5,220,541).

Bowen teaches a method of forming raised figures on a dial plate and the article produced thereby. The article includes an insert in the form of a dial plate having at least one hole and may consist of metal (page 1, lines 116-119). The dial plate has a decorative surface including a preformed skin on one side and a backing on the opposing side, both in the form of finish surfaces (page 2, lines 4-7). A thermoplastic resin is applied to the back of the dial plate backing and protrudes through the hole(s) in the dial plate to form resin features in association with the dial plate surface (page 1, lines 80-90 and page 2, lines 8-44). The resin may be formed of a wide range of

thermoplastic materials that best suit the final decorative appearance and finish, including broad ranges of finish and color (page 1, lines 87-89 and 95-97).

Bowen does not teach a feature formed on the insert outside of the resin feature formed in the holes.

Vuilleumier teaches a watch movement including implementation of features on the dial plate including chronograph functionality depicted by hands, markings and numbers. Therefore, as Vuilleumier clearly teaches chronographic features provide the advantage of chronographic functionality on a watch dial plate, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to apply chronographic features as taught by Vuilleumier to the dial plate taught by Bowen. Further, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the chronographic feature in the insert rather than just on the insert, since it has been held that the use of a one piece construction instead of the structure disclosed in the prior art would be merely a matter of obvious engineering choice. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA (1965)). Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Claims 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Davidson et al. (US 6,321,441) in view of Toyooka (US 2001/0040001).

Davidson et al. teach a trim level piece comprising an insert 4 having at least one hole and at least one feature formed in the insert and a backing. A resin backing 100

associated with the insert backing includes a portion that protrudes through the hole to form at least one resin feature located on the insert predecorated surface. See Fig. 1.

Davidson et al. appear to show a decorated surface of insert 4 (Fig. 1), but do not specifically state it is so. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a decorative surface on the insert 4, since it has been held that matters relating to ornamentation only, which have no mechanical function, cannot be relied upon to patentably distinguish the claimed invention from the prior art. *In re Seid*, 161 F.2d 229, 73 USPQ 431. Further, Toyooka et al. teach inclusion of symbol layer 6 for decorative purposes. Therefore, as Toyooka clearly teaches inclusion of decorative surfaces in a phone top cover are desirable, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to include a decorative surface in insert 4.

Davidson et al. do not teach the composition of the phone top cover insert 4, specifically both a preformed skin layer and a preformed metal layer.

Toyooka teaches a cellular phone top cover including a decorative film preformed skin layer (for example, layer 3) and a preformed metal layer (for example metal layer 7) with the benefits of high product strength and high waterproofness (paragraph [0002]). Therefore, as Toyooka clearly teaches a phone top cover including a decorative film preformed skin layer (for example, layer 3) and a preformed metal layer (for example metal layer 7) provides the advantages of high product strength and high waterproofness, it would have been obvious to one of ordinary skill in the art at the time of the claimed invention to use the cellular top cover of Toyooka as the top cover of

Davidson et al. Thus the claimed invention as a whole is *prima facie* obvious over the combined teachings of the prior art.

Response to Arguments

Applicant's arguments, see the Remarks and amendments, filed 2/22/08, with respect to Tanikita et al. as a primary reference alone and in combination, Marton et al. as a primary reference alone and in combination, and Sweeney et al. as a primary reference alone and in combination have been fully considered and are persuasive in light of the present amendments. These rejections have been withdrawn.

Applicant's arguments filed with respect to the Bowen reference alone and in combination have been fully considered but they are not persuasive.

In particular, Applicant argues Vuilleumier teaches forming a feature "on" the watch surface rather than "in" the surface as claimed. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to form the chronographic feature in the insert rather than just on the insert, since it has been held that the use of a one piece construction instead of the structure disclosed in the prior art would be merely a matter of obvious engineering choice. *In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA (1965)).

Regarding claims 21 and 22, Applicant argues the cited prior art does not disclose preformed skin and preformed metal layers. However, the term "preformed" is considered product by process language. The above arguments establish a rationale

tending to show the claimed product is the same as what is taught by the prior art.

"[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964,966. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983), MPEP 2113.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AARON S. AUSTIN whose telephone number is (571)272-8935. The examiner can normally be reached on Monday-Friday: 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John J. Zimmerman/
Primary Examiner, Art Unit 1794

/Aaron Austin/